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WHAT IS CLAIMED IS:

1. An image recording apparatus for recording an image by applying a coloring material on a recording medium in accordance with image data by recording means, comprising:

conveying means for conveying the recording medium so as to permit recording on both of a first recording side and a second recording side of the recording medium;

setting means for variably setting a length of time between an end of recording on the first recording side of the recording medium and a start of recording on the second recording side of the recording medium in accordance with the image data for recording on the first recording side of the recording medium; and

control means for controlling conveying operation by said conveying means such that recording on the second recording side of the recording medium by said recording means is started after passage of time set by said setting means.

2. The image recording apparatus according to claim 1, wherein said length of time set by said setting means is set in accordance with the number of application of ink on the first recording side of the recording medium.

3. The image recording apparatus according to claim 1, wherein said length of time set by said setting means is set in accordance with the number of application of ink on the first recording side of the recording medium and a kind of the recording medium.

4. The image recording apparatus according to claim 2, wherein when said number of application of ink is a first number, a first length of time is set, while when said number of application of ink is smaller than the first number, a second length of time shorter than the first length of time is set.

5. The image recording apparatus according to claim 2, wherein said number of application of ink on the first recording side of the recording medium is smaller than said number of application of ink on the second recording side of the recording medium.

6. The image recording apparatus according to claim 1, wherein said length of time set by said setting means is set in accordance with a recording duty of recording on the first recording side of the recording medium.

7. The image recording apparatus according to claim 1, wherein said length of time set by said

setting means is set in accordance with the recording duty of recording on the first recording side of the recording medium and the kind of the recording medium.

8. The image recording apparatus according to claim 6, wherein when said recording duty is a first duty, a first length of time is set, while when said recording duty is lower than the first duty, a second length of time shorter than the first length of time is set.

9. The image recording apparatus according to claim 6, wherein the recording duty of the first recording side of the recording medium is lower than the recording duty of the second recording side of the recording medium.

10. The image recording apparatus according to claim 1, wherein said length of time set by said setting means is set in accordance with an application amount of ink on the first recording side of the recording medium.

11. The image recording apparatus according to claim 1, wherein said length of time set by said setting means is set in accordance with the application amount of ink on the first recording side of the

recording medium and the kind of the recording medium.

12. The image recording apparatus according to claim 10, wherein when said application amount of ink is a first amount, a first length of time is set, while when said application amount of ink is smaller than the first amount, a second length of time shorter than the first length of time is set.

13. The image recording apparatus according to claim 10, wherein said application amount of ink on the first recording side of the recording medium is smaller than said application amount of ink on the second recording side of the recording medium.

14. The image recording apparatus according to claim 1, wherein said length of time set by said setting means is set in accordance with an amount of data for applying ink of the image data for recording on the first recording side of the recording medium.

15. The image recording apparatus according to claim 1, wherein said length of time set by said setting means is set in accordance with the amount of data for applying ink of the image data for recording on the first recording side of the recording medium and the kind of the recording medium.

16. The image recording apparatus according to claim 14, wherein when said amount of data for applying ink is a first amount, a first length of time is set, while when said amount of data is smaller than the first amount, a second length of time shorter than the first length of time is set.

17. The image recording apparatus according to claim 14, wherein said amount of data for applying ink on the first recording side of the recording medium is smaller than said amount of data for applying ink on the second recording side of the recording medium.

18. An image recording apparatus for recording an image by applying a coloring material on a recording medium in accordance with image data by recording means, comprising:

conveying means for conveying said recording medium so as to permit recording on both of one recording side and the other recording side of the recording medium;

determining means for determining on which recording side of one recording side or the other recording side of the recording medium, recording is previously carried out, based on both of image data for recording on one recording side of the recording medium and image data for recording on the other side of the

recording medium;

setting means for variably setting a length of time between an end of recording on one recording side of the recording medium and a start of recording on the other recording side of the recording medium in accordance with the image data for recording on the recording side which is determined by said determining means; and

control means for controlling conveying operation by said conveying means such that recording on the other recording side by said recording means is started after passage of time set by said setting means.

19. The image recording apparatus according to claim 18, wherein a recording duty of the recording side which is determined by said determining means is lower than a recording duty of the recording side which is not determined by said determining means.

20. The image recording apparatus according to claim 1, wherein said conveying means reverses the recording medium in order to permit recording on the first recording side and the second recording side of the recording medium.

21. The image recording apparatus according to claim 1, wherein said recording means is an inkjet

recording head for carrying out recording by discharging ink.

22. The image recording apparatus according to claim 21, wherein said inkjet recording head comprises thermal energy generating means for generating a bubble by applying heat on the ink and discharging the ink based on generation of the bubble.

23. An image recording method for recording an image by applying a coloring material on a recording medium in accordance with image data by recording means, comprising:

a conveying step of conveying the recording medium so as to permit recording on both of a first recording side and a second recording side of the recording medium;

a setting step of variably setting a length of time between an end of recording on the first recording side of the recording medium and a start of recording on the second recording side of the recording medium in accordance with the image data for recording on the first recording side of the recording medium; and

a controlling step of controlling conveying operation of the recording medium such that recording on the second recording side of the recording medium by said recording means is started after passage of time

set by said setting means.

24. The image recording method according to claim 23, wherein said length of time set by said setting step is set in accordance with the number of application of ink on the first recording side of the recording medium.

25. The image recording method according to claim 23, wherein said length of time set by said setting step is set in accordance with the number of application of ink on the first recording side of the recording medium and a kind of the recording medium.

26. The image recording method according to claim 24, wherein when said number of application of ink is a first number, a first length of time is set, while when said number of application of ink is smaller than the first number, a second length of time shorter than the first length of time is set.

27. The image recording method according to claim 24, wherein said number of application of ink on the first recording side of the recording medium is smaller than said number of application of ink on the second recording side of the recording medium.

28. The image recording method according to claim 23, wherein said length of time set by said setting step is set in accordance with a recording duty of recording on the first recording side of the recording medium.

29. The image recording method according to claim 23, wherein said length of time set by said setting step is set in accordance with the recording duty of recording on the first recording side of the recording medium and the kind of the recording medium.

30. The image recording method according to claim 28, wherein when said recording duty is a first duty, a first length of time is set, while when said recording duty is lower than the first duty, a second length of time shorter than the first length of time is set.

31. The image recording method according to claim 28, wherein the recording duty of the first recording side of the recording medium is lower than the recording duty of the second recording side of the recording medium.

32. The image recording method according to claim 23, wherein said length of time set by said setting step is set in accordance with an application amount of

ink on the first recording side of the recording medium.

33. The image recording method according to claim 23, wherein said length of time set by said setting step is set in accordance with the application amount of ink on the first recording side of the recording medium and the kind of the recording medium.

34. The image recording method according to claim 32, wherein when said application amount of ink is a first amount, a first length of time is set, while when said application amount of ink is smaller than the first amount, a second length of time shorter than the first length of time is set.

35. The image recording method according to claim 32, wherein said application amount of ink on the first recording side of the recording medium is smaller than said application amount of ink on the second recording side of the recording medium.

36. The image recording method according to claim 23, wherein said length of time set by said setting step is set in accordance with an amount of data for applying ink of the image data for recording on the first recording side of the recording medium.

37. The image recording method according to claim 23, wherein said length of time set by said setting step is set in accordance with the amount of data for applying ink of the image data for recording on the first recording side of the recording medium and the kind of the recording medium.

38. The image recording method according to claim 36, wherein when said amount of data for applying ink is a first amount, a first length of time is set, while when said amount of data is smaller than the first amount, a second length of time shorter than the first length of time is set.

39. The image recording method according to claim 36, wherein said amount of data for applying ink on the first recording side of the recording medium is smaller than said amount of data for applying ink on the second recording side of the recording medium.

40. An image recording method for recording an image by applying a coloring material on a recording medium in accordance with image data by recording means, comprising:

a conveying step of conveying said recording medium so as to permit recording on both of one recording side and the other recording side of the

recording medium;

a determining step of determining on which recording side of one recording side or the other recording side of the recording medium, recording is previously carried out, based on both of image data for recording on one recording side of the recording medium and image data for recording on the other side of the recording medium;

a setting step of variably setting a length of time between an end of recording on one recording side of the recording medium and a start of recording on the other recording side of the recording medium in accordance with the image data for recording on the recording side which is determined by said determining step; and

a controlling step of controlling conveying operation of the recording medium such that recording on the other recording side by said recording means is started after passage of time set by said setting step.

41. The image recording method according to claim 40, wherein a recording duty of the recording side which is determined by said determining step is lower than a recording duty of the recording side which is not determined by said determining step.

42. The image recording method according to claim

23, wherein the recording medium is reversed in said conveying step in order to permit recording on the first recording side and the second recording side of the recording medium.

43. The image recording method according to claim 23, wherein said recording means is an inkjet recording head for carrying out recording by discharging ink.

44. The image recording method according to claim 43, wherein said inkjet recording head comprises thermal energy generating means of generating a bubble by applying heat on the ink and discharging the ink based on generation of the bubble.

45. A computer readable storage medium which stores a program for executing a control processing of an image recording apparatus for recording an image by applying a coloring material on a recording medium in accordance with image data by recording means,

wherein said program comprises the steps of:

(a) conveying the recording medium so as to permit recording on both of a first recording side and a second recording side of the recording medium;

(b) variably setting a length of time between an end of recording on the first recording side of the recording medium and a start of recording on the second

recording side of the recording medium in accordance with the image data for recording on the first recording side of the recording medium; and

(c) controlling conveyance of the recording medium such that recording on the second recording side of the recording medium by said recording means is started after passage of time set by said setting step.

46. A program for executing a control processing of an image recording apparatus for recording an image by applying a coloring material on a recording medium in accordance with image data by recording means, comprising the steps of:

(a) conveying the recording medium so as to permit recording on both of a first recording side and a second recording side of the recording medium;

(b) variably setting a length of time between an end of recording on the first recording side of the recording medium and a start of recording on the second recording side of the recording medium in accordance with the image data for recording on the first recording side of the recording medium; and

(c) controlling conveyance of the recording medium such that recording on the second recording side of the recording medium by said recording means is started after passage of time set by said setting means.